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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,101	09/26/2005	Richard Mueller	ZP192-05009	1624
22884 7590 06/24/2009 MIDDLETON & REUTLINGER 2500 BROWN & WILLIAMSON TOWER LOUISVILLE, KY 40202				
EXAMINER				
SKOLER, JAY R				
ART UNIT		PAPER NUMBER		
3775				
MAIL DATE		DELIVERY MODE		
06/24/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/551,101

**Applicant(s)**

MUELLER, RICHARD

**Examiner**

JAY R. SIGLER

**Art Unit**

3775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-8, 10, 11 and 13-68 is/are pending in the application.
- 4a) Of the above claim(s) 16-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8, 10, 11, 13-15 and 55-68 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 20 February 2009 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-4, 6-8, 10, 11, 13-15, and 55-68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claim language "wherein [at least a portion of] said female threads extend into said housing to a first depth and terminate above an upper surface of said rod when said rod is fully received within said housing" (see claim 1, lines 29-31, claim 55, lines

23-25, claim 62, lines 16-18, and claim 68, lines 21-23) is not supported by the original specification. The specification does not contain this language. Additionally, the drawings are not disclosed as "to scale" nor is there a drawing showing both the female threads and rod. Therefore, the drawings do not support the claimed limitation. Further, as seen in Fig. 45, the female threads appear to be substantially close to the bottom of the channel (105), making the claim language misdescriptive of the disclosed invention.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 55-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/52758 to Yuan et al. (previously cited; hereinafter "Yuan") in view of US 5,154,719 to Cotrel (previously cited; hereinafter "Cotrel") and WO 03/024343 to Vienney et al. (previously cited; hereinafter "Vienney"). US 2005/0240180 is the national stage entry of WO 03/024343 and is relied upon as a translation. The following references to Vienney are taken from US 2005/0240180.

a. Concerning claim 55, 60-62, 67, and 68: Yuan discloses a bone fixation apparatus for a rod system comprising: a bone anchor (see Abstract; taken to be embodied by fastener portion) having a proximal end capable of engaging a

driving device and a distal end for engaging a bone; a housing (see Abstract; taken to be embodied by head portion) coupled to said proximal end of said bone anchor having opposed spaced-apart flanges (230 and 232) extending longitudinally defining a channel therebetween for receiving a rod (228); a locking assembly (see Abstract; taken to be embodied by locking cap); wherein said locking assembly further comprises an upper cap (220a) and a lower cap (220b) joined by a post (298) and rotatable relative one to the other (Page 19; First Paragraph), wherein said upper cap is a generally cylindrical member having an inner cavity (282) and an upper surface and a lower surface and wherein said inner cavity further comprises an opening to receive said post (288); and wherein said lower cap comprises an upper surface and a lower semi-cylindrical surface (299) for engaging said rod. The rod is insertable in the channel and the locking assembly is used to lock the rod into the housing (see Abstract). The post has an outer perimeter with a first profile and the opening has a second profile that is geometrically similar (see Fig. 12A-B). The two profiles can be considered to allow one orientation, i.e. where the center axis of the post and center axis of the hole align. The lower cap has an extension or first orientation means (302).

Yuan does not specifically disclose the threaded engagement between the locking assembly and the housing, but does teach a means (284, 286, 294, and 296) for a locking engagement between the locking assembly and the housing terminates above an upper surface of the rod (see Fig. 13). Yuan does not

specifically disclose the extension having a width that is substantially equal to the diameter of the rod.

Cotrel suggests a bone fixation apparatus including a locking system (10, 11, and 12) that uses a threaded engagement (7 and 9) in order to lock the rod in translation and in rotation (see Abstract).

It would have been obvious to substitute the locking engagement of Yuan et al, in view of Cotrel, with a threaded engagement because the substitution of one known element for another would have yielded predictable results, namely creating a locking engagement between the locking assembly and housing. Therefore, the locking engagement, i.e. the threads, in the modified invention of Yuan, in view of Cotrel, would terminate above an upper surface of the rod.

Vienney suggests a lower cap (3) having a width that is substantially equal to a rod (2) and channel (12) (see Fig. 2) in order to keep the lower cap in proper orientation with regards to the rod.

It would have been obvious to someone of ordinary skill in the art at the time of the invention to have the extension on the lower cap in the modified invention of Yuan, in view of Cotrel, have a width that is substantially equal to the width of the rod and channel in order to keep the lower cap in proper orientation with the rod.

b. Concerning claims 56-59 and 63-66, Yuan, in view of Cotrel, can be considered to suggest the claimed limitations, depending on where the axes and planes are considered to be.

### ***Response to Arguments***

6. Applicant's arguments filed 20 February 2008 have been fully considered but they are not persuasive.
7. Concerning applicant's argument on page 18-19 regarding the new matter rejection, the applicant appears to assert that if something is an obvious improvement to their disclosed invention, then their disclosure supports a claim for that invention. The examiner respectfully disagrees. While it is understood that there need not be literal support for the later claimed material, the disclosure does not convey that the inventor had possession at the time of the invention of the later filed claimed subject matter. It is noted that if the later claimed subject matter were in a later filed separate application, applicant's disclosure could not be used in an anticipation rejection against said separate application.
8. Applicant's arguments with respect to the prior art rejections of the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAY R. SIGLER whose telephone number is (571)270-3647. The examiner can normally be reached on Monday through Thursday from 8 AM to 4 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Barrett can be reached on (571) 272-4746. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. R. S./  
Examiner, Art Unit 3775

/Thomas C. Barrett/  
Supervisory Patent Examiner, Art  
Unit 3775